PRINCEMINERALS®

MATERIAL SAFETY DATA SHEET

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Section I: Product Information

Identity: CHROMITE Iron
Synonyms: CHROME ORE, CHROMITE ORE, IRON CHROMITE; CHROME SAND

Trade Names: CHROMOX; ChromeCAST;

Revision Date: 02/2011

HMIS

Health- 2
Flammability- 0
Reactivity- 0
Personal Protection:

Section II: Composition

Chemical Name:	CAS #	Percent
Chrome Ore (Cr_2FeO_4) or Cr_2O_3	1308-31-2	100

Rec'd 2/19/13

Section III: Health Hazard Data

Component	CAS	% By Wt	OSHA PEL (mg/m^3)	OSHA Ceiling	ACGIH TLV	ACGIH STEL	Listed Carcinogen		
							NTP	IARC	OSHA
Chrome Ore	1308-31-2	100	1 (as Cr)	N/A	0.05 (as Cr)	N/A	N	Y*	N

* IARC Group: Not classifiable as carcinogenic to humans

Emergency Overview: Not a fire or spill hazard. Low toxicity- Dry dust is a nuisance particulate. Generally, health effects are provided for exposure to dust that may be generated during product transfer and handling.

Primary Route of Exposure: Inhalation

Relevant Routes of Exposure:

EYE CONTACT: Particulate may cause slight to moderate irritation. Abrasive action of dust particulate can damage eye.
SKIN CONTACT: Prolonged or repeated contact may cause slight to moderate irritation.
INHALATION: Overexposure by inhalation of airborne particulate, dust, or fumes is irritating to the nose, throat, and respiratory tract. Inhalation of excessive levels of dust or fumes may be harmful.
INGESTION: Unlikely route of exposure; no hazard in normal industrial use. Small amounts (< tablespoonful) swallowed during normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. If ingested in sufficient quantity, may cause gastrointestinal disturbances. Symptoms may include irritation, nausea, vomiting, abdominal pain, and diarrhea.

Acute and Chronic effects of Exposure:

Excessive, short-term exposure to airborne mineral dusts and particulate may cause upper respiratory and eye irritation. Excessive, long-term inhalation of airborne mineral dusts and particulate may contribute to the development of bronchitis, reduced breathing capacity, and may lead to the increased susceptibility to lung disease.

Signs and Symptoms of Exposure:	(Dust) tearing of eyes, burning sensation in the throat, cough, and chest discomfort.
Aggravation of Pre-existing Conditions:	The excessive inhalation of mineral dust may aggravate pre-existing chronic lung conditions such as, but not limited to, bronchitis, emphysema, and asthma.
Reproductive Hazards:	Not a reproductive hazard.

Section IV: First Aid

Emergency and First Aid Procedures:	**EYE CONTACT:** Flush eyes immediately with water for at least 15 minutes. Seek medical attention if irritation persists. **SKIN CONTACT:** Immediately wash affected area with mild soap and water to remove any dust adhering to the skin. Seek medical attention if irritation develops or persists. **INHALATION:** If exposed to excessive levels of dust or fumes, remove to fresh air and seek medical attention if cough or other symptoms develop. If not breathing, give artificial respiration or give oxygen by trained personnel, and get medical attention. **IF INGESTED:** Unlikely route of exposure. If ingested in sufficient quantity and victim is conscious, give 1-2 glasses of water or milk. Never give anything by mouth to an unconscious person. Leave decision to induce vomiting to qualified medical personnel, since particles may be aspirated into the lungs. Seek immediate medical attention.

Section V: Fire and Explosion Hazard Data

Emergency Overview:	Not a fire or spill hazard. Low toxicity; dry dust is a nuisance particulate. Generally, health effects are provided for exposure to dust that may be generated during product transfer and handling.
Flammable Properties:	Material will not burn. No unusual fire or explosion hazards.
Extinguishing Media:	Use extinguishing media appropriate to combustibles in the surrounding area.
Protection for Firefighters:	Wet material should be kept out of eyes and off skin. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Material does not give off toxic fumes in a fire unless molten.

Section VI: Accidental Release

Containment:	Product is a dry solid (granular or powder) and not readily soluble in water. However, prevent spilled product from entering streams, water bodies, and wastewater systems.
Cleanup:	Vacuum or sweep up dry material and place in a container for reuse. Avoid creating excessive airborne dust. It is recommended that cleanup personnel wear approved respiratory protection, gloves, long sleeved clothing and goggles to prevent irritation from contact and inhalation.
Collection:	If possible, collect and reuse spilled product.
Evacuation:	Isolate hazard area. Keep unnecessary and unprotected personnel from entering area.
Potential Environmental Effects:	Derived from natural ores; no adverse environmental effects known. However, prevent spilled product from entering streams, water bodies, and wastewater systems

Section VII: Precautions for Safe Handling and Use

Handling: Minimize dust generation and accumulation. Avoid breathing dust. Avoid contact with skin and eyes.

Storage: Store in cool, dry area. Keep container closed when not in use.

Waste Disposal: If possible, collect and reuse spilled product. Disposal Method: Follow all applicable Federal, State, and local laws, rules, and regulations regarding the proper disposal of this material

Section VIII: Control Measures/ PPE Requirements

Engineering Controls: Minimize dust generation and accumulation. Avoid breathing dust. Keep exposure below the exposure limits listed in Section III.

Personal Protective Equipment:

Eye Protection: Corrosive to eyes. Wear protective safety goggles when dust generation is likely.
Skin Protection: Wear clothing sufficient to cover the skin, safety shoes, and leather gloves for hand protection against dry material.
Respiratory Protection: Use NIOSH/MSHA approved respiratory protection (air purifying or air supplying) when concentrations are above exposure limit value. A respiratory protection program that meets OSHA 29 CFR part 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant the use of a respirator.

Good Hygienic Practice: Wash thoroughly after using product. Wash contaminated clothing. Wash hands before eating or drinking.

Section IX: Physical and Chemical Properties

Bulk density:	180-200 lbs/ft^3	**Freeze Point:**	Solid at STP	**% volatile by vol:**	0% H_2O
Water solubility:	Insoluble	**Melting Point:**	>3400 °F	**Vapor Density:**	N/A
pH: (10% aqueous slurry)	N/A	**Boiling Point:**	N/A	**Vapor Pressure:**	N/A

Appearance and Odor: Chrome ore is usually black, but does show some variation from iron-black to brownish black with some brown streaks. Various grades can vary from large pieces down to fine powders. Odorless.

Section X: Stability/ Reactivity Data

Stability: Stable under normal conditions of storage.
Conditions to Avoid: None under normal conditions.
Incompatibility (materials to avoid): Chrome ore can react at high temperature with molten alkalis and alkali vapors forming water-soluble chromium salts.
Hazardous Decomposition or Byproducts: None under normal conditions.
Hazardous Polymerization: Will not occur.

Section XI: Toxicological Properties

Component	CAS	RTECS Toxicity
Chrome Ore	1308-31-2	N/A

Section XII: Ecological Information

Material derived from mineral ores. No data available on any adverse effects of this material on the environment.

Section XIII: Disposal Considerations

RCRA: As manufactured, this product is not a RCRA listed hazardous waste and does not exhibit any characteristics of a hazardous waste, including TCLP.

Disposal Method: This product is generally suitable for landfill disposal. Follow all applicable Federal, State and local laws regarding proper disposal. If this product has been altered or contaminated with other hazardous materials, appropriate waste analysis may be necessary to determine method of disposal.

Section XIV: Transportation Information

USDOT: Not regulated

Section XV: Regulatory

Note: Prince Minerals, Inc.'s chromite ore is mined from the Transvaal Region of South Africa. This ore and the un-reacted ore component of the chromite ore processing residue are exempt from the reporting requirements under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (EPCRA) and Section 6607 of the Pollution Prevention Act of 1990 (PPA). See 66FR24066 for complete citation.

RCRA:	No
CERCLA:	No
SARA:	No
TSCA:	Not Regulated

Iron(II) chromite

From Wikipedia, the free encyclopedia

Iron(II) chromite is an inorganic compound with the chemical formula $FeCr_2O_4$.

Contents

Preparation

It is created by the sintering of chromium(III) oxide and iron(II) oxide at 1600 °C. It also occurs in nature as the mineral chromite, though with many impurities.

Uses

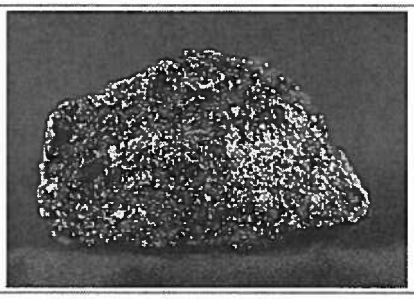
It is used as a commercial source of chromium and its compounds. [1]

Safety

It dust particles may cause irritation. Avoid inhalation and/ or ingestion of dusts. Swallowing larger amounts may cause injury.

References

Iron(II) chromite



Names	
IUPAC name Iron(2+) chromite	
Identifiers	
CAS Number	1308-31-2
EC Number	215-159-3
Jmol interactive 3D	Image (http://chemapps.stolaf.edu/jmol/jmol.php?model=%5BO-2%5D.%5BO-2%5D.%5BO-2%5D.%5BCr%2B3%5D.%5BFe%2B3%5D)
PubChem	166600
RTECS number	GB4000000
InChI	
SMILES	
Properties	
Chemical formula	$FeCr_2O_4$
Molar mass	223.83 g/mol
Appearance	brown-black solid
Density	4.97 g/cm^3
Melting point	2,190 to 2,270 °C (3,970 to 4,120 °F; 2,460 to 2,540 K)
Solubility in water	insoluble
Solubility	slightly soluble in acid
Refractive index (n_D)	2.16

1. University of Akron Chemical Database (http://ull.chemistry.uakron.edu/erd/Chemicals/10000/8641.html)

Structure	
Crystal structure	cubic
Hazards	
GHS pictograms	
GHS hazard statements	H317
EU classification (DSD)	 N
R-phrases	R58
S-phrases	S61
Except where otherwise noted, data are given for materials in their standard state (at 25 °C [77 °F], 100 kPa). Infobox references	

Retrieved from "https://en.wikipedia.org/w/index.php?title=Iron(II)_chromite&oldid=636683863"

Categories: Iron compounds | Chromites | Inorganic compound stubs